

Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

H.249.39
S03
cop.2

Management Training

for Supervisors and Staff Officers

Unit 8

Principles of Planning and Scheduling

U. S. DEPT. OF AGRICULTURE
NATIONAL AGRICULTURAL LIBRARY
APR 30 1963
C & R-PREP.

Soil Conservation Service
U. S. Department of Agriculture

(May 1959)

You cannot teach a man anything;

You can only help him to find it within himself.

Galileo

UNIT 8

PRINCIPLES OF PLANNING AND SCHEDULING

OBJECTIVES

- (1) To understand the importance of planning.
- (2) To understand the importance of having factual data as a basis for planning.
- (3) To understand the steps in planning.
- (4) To learn how to plan effectively.

PLANNING DEFINED

What is planning?

Planning is the conscious process of selecting and developing the best course of action to accomplish an objective. It is the basis from which future management actions spring.

This process includes all the steps which are essential to the smooth conduct of an operation and the evaluation of what is expected of the particular operation in terms of its contribution to the overall objective. In planning, a person visualizes what the operation is all about, how it is to be conducted, and what contribution it will make to the broader objectives.

Planning is vision.

Know the situation.

A thorough knowledge of the situation surrounding the proposed action is necessary for good planning. Such knowledge helps to conceive and develop the plan in its proper relationship to other activities, to properly proportion it to needs and resources, and to fit it within the framework of Service objectives and policies. Where adequate information for good planning is lacking, it is best to delay planning until such information is available. A good example is the information that must be available to the work unit conservationist before he can do a good job of assisting a farmer in the development of a basic conservation plan. He must have a great deal of information about the farm itself, such as soils information, land use, erosion problems, and other basic data. He must also have a wealth

Have the information.

of information not directly associated with the farm but having an important bearing on the planning process, such as market information, social customs, economics, including credit facilities, information on climate, crop adaptations, farm machinery, and the like. Unless he has a good working knowledge of these factors, the work unit conservationist will be of little assistance to the farmer in planning a conservation program for his farm.

STEPS IN PLANNING

Planning steps

There are 5 important and well-defined steps in the planning process. They are:

1. Defining and understanding the objective.
2. Evaluating the situation.
3. Taking inventory of resources.
4. Selecting the course of action.
5. Work organization and scheduling.

Let's take these steps one at a time and see what is involved.

1. Defining and Understanding the Objective

You must know the objective.

Understanding the objective is a must if we are to accomplish it effectively. The effectiveness of our decision is directly related to the accuracy of our interpretation of the meaning of our task. We must determine exactly what we are trying to do. All too often this important step in the planning process is badly neglected.

What do we want to accomplish?

The first requirement of planned action is the formulation of specific objectives. This necessitates breaking down the total job into parts and establishing relationships among them. We must ask ourself: What specific objectives must I achieve and how are they related to one another. Having determined these specific objectives and their relationships, we must analyze each in terms of what is needed to get them done. By this means, we formulate specific tasks. We must carry on this process of analysis until we reach the level of specific jobs to be performed by individuals.

This analysis of the job into components allows us to visualize the succession of steps in an

Divide the job into parts.

operation and the inter-relations among them. The entire job can then be visualized as a build-up of the specific operations and their relation both to one another and the total objective.

2. Evaluating the Situation

What's the situation?
What have I got to work with?

In evaluating the situation, we study the setting in which our job must be accomplished. We bring our knowledge and experience into play and appraise past, present, and future circumstances in terms of relationships to other organizational groups, of established policies and of prescribed procedures.

An operation is never conducted in a vacuum. The steps involved hinge upon other operations. Hence, it is important to relate its objective to those of other related operations. We must determine the other organizational elements which should be appraised of the development of our activities and establish liaison with them. Moreover we must decide to what extent we can rely on their aid, how they fit into the scheme of our operations, what sort of contribution they can make, and what the relative priorities of these contributions are.

What's the total job?

Work Load Analysis.--In the Soil Conservation Service, we begin our evaluation of the situation with a work load analysis. Obviously, a work load cannot be analyzed unless we know what it is, so the first thing we must do is to state the work load by determining:

- (a) What the various jobs are that make up the work load.
- (b) How many jobs of each kind there are to do.
- (c) About how long it will take to do each job.
- (d) Who (in terms of kinds and grades of personnel) is going to do the work.

3. Taking Inventory of Resources

What have I got to do the job with?

The third step in the planning process is that of inventorying all available resources. It is futile and even wasteful to make plans

which include objectives that are clearly beyond present or foreseeable resources to accomplish. To avoid this, the planner should inventory all the resources that will be available for carrying out the action. This should include an appraisal of the number, capacities and skills of personnel within the Service who will be available for the activity as well as personnel outside the Service who have an interest or responsibility in the activity and whose contribution can be accurately predicated. Supplies and equipment must be available so that the work can be carried on in proper sequence and without undue interruptions or delays.

4. Selecting the Course of Action

Plan of operations
based on work load
analysis and
inventory of
resources.

Once we have the facts from our work load analysis and inventory of resources we can proceed to determine a course of action and proceed to develop a written plan of operations. We can also set forth some realistic estimates of what we can do, or in other words, we can set up our goals for accomplishment in a given period of time as a part of the overall objective. This is a process of thinking through the entire action phase of the plan, developing step by step procedures, coordinating resources and determining priorities of jobs so that the work will progress in proper sequence. Here also a determination must be made as to who will do the various jobs. This involves the effective use of technical and other skills and talents of available personnel.

Who will do what and
when.

Outside resources
important.

The detail that goes into this step, to a large extent, depends upon the nature, scope and complexity of the work to be done; the extent of involvement of resources outside the Service; and the extent to which all personnel is familiar with the various phases of the work.

Guide for developing
plan of operations.

A few safeguards in developing a plan of operations are:

- (a) Avoid extensive and elaborate descriptions and discussions. Make the items clear but make them brief and to the point.
- (b) Avoid long lists of items that may be classed as routine work.

Such work can be listed as part of the total to be done, but it need not be spelled out in great detail.

(c) Be sure the plan is complete, especially with respect to all major items. Questions are certain to be raised if some item is omitted, even though nothing special may be planned for it.

(d) Prepare the plan for yourself to use as a guide or reference point.

5. Work Organization and Scheduling

We must assign priorities to our time and resources.

In the SCS as elsewhere, we seldom have time and resources to do all the things that we want to do or that we feel need to be done. In other words, any activity must compete with all other activities for our time and resources. We are constantly confronted with the problems of relating any particular activity to our total time and other resources. We have to set priorities among jobs that will permit us to do first the things that contribute most to our total efforts. This means that sometimes we have to do the unpleasant jobs first and sometimes it means not doing some jobs at all. It always means that we should devote less time and resources to the less important jobs while we concentrate most of our efforts on really important matters.

Do most important things first.

Assign each activity a priority.

So, it is in this setting that we must consider the scheduling of any particular activity. Once the activity has been assigned its proper place in the priority listing of all activities and sufficient time and other resources have been allotted for its accomplishment, we are ready to do the scheduling needed within the activity itself. Scheduling within the activity is essential because the plan will almost surely come to naught unless a schedule is established for carrying it out.

Schedule within the activity.

Scheduling has twofold purpose.

Our purpose in scheduling is actually twofold. First, we schedule the various phases of the activity so that the desired objective is accomplished and, secondly, we schedule to

make the most effective use of the time and other resources at our disposal.

Scheduling is who and when.

In its simplest terms, scheduling can be expressed in two words -- WHO and WHEN. However, in determining who and when, we must consider many aspects of the activity in question. For example, we must consider the priority and sequence of jobs within the activity and even the sequence of events within these jobs.

Seasonal and other characteristics of the activity must be considered.

We must consider the time required for the various jobs and then schedule people who have the needed technical and other skills to carry them out. Often, it is necessary to consider seasonal and other characteristics of certain activities. For example, in northern latitudes, many soil survey activities must be scheduled in spring, summer and fall months, while snow surveys can be carried on in the dead of winter. Planting and harvesting seasons have important influences on some activities, as do peak work loads in other activities in the same organization or unit.

Good scheduling.

Greater accomplishment with available time.

The better we are able to schedule the work we do, the less effort it takes, in total, to get it done. Putting this another way, well-scheduled work results in getting more done for the money or time we spend. These ideas are well-known, and they have been confirmed in the Service by the Bobst-Gates Studies of 1951, which established a high degree of correlation between effective scheduling and high production.

Long-term scheduling approximate.

The long-term schedule is usually prepared for about a year ahead. Specific dates are put in it when known, but usually the timing is necessarily somewhat general in character as, for example, "spring," "fall," "late August," and the like. In addition, the long-term schedule usually emphasizes activities or jobs and their approximate time, rather than people.

Short-term schedule gets specific.

The short-term schedule may cover any period from one to a few weeks in the immediate future. Actually, it is the immediate portion of a long-term schedule crystallized for specific action. In the short-term schedule it is possible to get specific not only on the dates, but also on the

time of day. In a work unit, for example, this is the schedule in which appointments with farmers would appear, giving both the day and the hour. The 5 to 10 days immediately ahead are, or should be, seldom subject to any great change. Weekly portions of this schedule are commonly sent from work units to area offices the Friday before, in order to keep the area conservationist fully informed.

MAKING AND USING SCHEDULES

Some useful rules for scheduling.

There are a number of useful rules about schedules that have developed as a result of experience. Some apply to any schedule, some apply primarily to the long-term type, and some to the short-term. These may be listed as suggestive guides:

Schedule is planning on a time basis.

1. Plan first and schedule afterwards. A schedule cannot do all your work of planning and organizing for you. Its value is primarily in setting forth plans on a time basis. Successful scheduling must follow and result from good planning and work organization. Specifically, a plan of operations is a primary guide to use in developing a long-term schedule. Likewise, well-organized work enables the most effective scheduling. To illustrate this point: A very good schedule of farm visits could be made in a work unit where farmers to be helped are widely scattered. The amount of time used would be greater the more widely the farms are separated, although the schedule would be all that could be expected in view of the lack of good organization of work. If the visits were grouped, that is, if the work were organized better, the schedule would result in the use of far less time spent on travel, repeated discussions, and the like.

Schedule everything

2. Schedule everything to be done, insofar as practical. Obviously, despite the most careful scheduling, unexpected matters will come up that will strain or break your schedule. Even so, this is

not a valid reason for neglecting to schedule all jobs and activities. The more fully you can organize your work into a schedule, the nearer you can come to peak efficiency.

Run your schedule;
don't let it run you.

Leave room for non-
scheduled matters,
emergency adjustments.

Work your schedule
with others.

Advertise your
schedule.

Confirm dates to keep
your schedule
developing.

3. Hold to your schedule as closely as practical. It is, of course, foolish to adhere blindly to a schedule just because it has been set. You should run the schedule; don't let it run you. But, again, the closer you can come to your schedule, the better for your work. Never deviate from it without good reason.
4. Plan for the unexpected. Since everyone knows that unexpected matters will come up from time to time, it is wise to provide for them in your schedule. At judicious intervals, your schedule ought to have openings in it for the non-scheduled matters. This allows for emergency adjustment. It is another way of saying that too tight a schedule often comes to grief.
5. Coordinate your schedule with those of people who work with you. An area conservationist, for example, cannot prepare his schedule in a vacuum. His schedule must tie in appropriately with those of his work units, staff members, the State office, and others.
6. Keep your schedule showing. It's very important that the people with whom you work -- both inside and outside the Service -- know that you have a schedule and that you stick to it pretty well. No one will necessarily respect your schedule if they don't know you have one. Posting on the wall or bulletin board is generally a good thing to do with any schedule in any office. Review it frequently.
7. Keep your schedule developing. In a work unit, it is highly advisable never to leave a farmer or a group without making a date for the next get-together, for whatever purpose you may have in mind. This helps to keep a farmer or a group of farmers continually pressing forward in the development of a progressive conservation program. General dates (as "fall" or "late September") can be confirmed by postcard or phone a little ahead of time. Indeed, continual confirmation

of scheduled dates of any kind will help materially to keep you "on schedule."

Keep working at it.
Experience will bring
improvement.

8. Analyze completed schedules from time to time to see if you could have prepared a better one in the light of the way things finally worked out. You may discover that you have a habit of scheduling too tightly, or too loosely, of omitting things, of abandoning your schedule when you should have stuck to it, etc. A critical review of finished schedules will often provide you with ideas for making better ones. Experience is, indeed, a great teacher, if you use it.

SUMMARY

In summary, let's look at our original objectives and see how well we have met them.

OBJECTIVE NO. 1 -- To understand the importance of planning.

We plan because we want to guide our efforts toward the successful accomplishment of some desired goal or objective. In the absence of good planning, our efforts are usually ineffective and results are unpredictable.

OBJECTIVE NO. 2 -- To understand the importance of having factual data as a basis for planning.

Unless we have such data, our plans cannot be properly related to other activities, they may not be in harmony with needs and resources, and they may not be within Service policies. Furthermore, we may be led into embarrassing and wasteful endeavors.

OBJECTIVE NO. 3 -- To understand the steps in planning.

The steps:

(1) Defining the objective.

Characteristics of good objectives.

- (a) There is an obvious need.
- (b) The objective is clearly defined.
- (c) The objective is attainable.

- (2) Evaluating the situation.
- (3) Taking inventory of the resources.
- (4) Selecting the course of action.
- (5) Work organization and scheduling.

OBJECTIVE NO. 4 -- To learn how to plan effectively.

Let's test some of our planning by asking ourselves a few questions.

- (1) Do I have all the information I need about the situation surrounding the activity that I want to initiate?
- (2) Do I know exactly what I want to accomplish?
- (3) Is there an obvious need for this activity?
- (4) Is the activity in harmony with Service policies and objectives?
- (5) Have I clearly stated my objective so that it expresses what I want to accomplish and will others know what I mean?
- (6) Can the objective be accomplished; in other words, is it attainable?
- (7) Do I know what resources I have at my disposal to carry out the plan? Have I planned accordingly?
- (8) Have I scheduled the activity so that it can be accomplished with the resources available and within the time allotted?

If I can answer these questions in the affirmative, then I have learned to do a good job of planning.

REFERENCES

The Nature of the Administrative Process - Jesse B. Sears
McGraw-Hill Book Company, Inc., 330 West 42d Street, New York 36,
New York, 1950

The Management Process - Air Force Manual 25-1
Department of the Air Force, 1954

Principles and Practices of Operations Management - William R. Van Dersal,
Soil Conservation Service, USDA, 1954

Management in the Public Service - John D. Millett
McGraw-Hill Book Company, Inc., 330 West 42d Street, New York 36,
New York, 1954

Administrative Action - William H. Newman
Prentice-Hall, Inc., New York, New York, 1950-51

